NAVAL WAR COLLEGE Newport, R.I.

THE EMERGENCE OF IRANIAN SEA POWER

by

Philip G. Laquinta Lieutenant Commander, U. S. Navy

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy

Signature: Helif Doquete

13 February 1998

Paper directed by Captain G. Jackson Chairman, Joint Military Operations Department

Approved for public release;
Distribution Unlimited

Captain W. M. Piersig, Jr. Date
Faculty Advisor

19980709 053

REPORT DOCUMENTATION PAGE

ALI ON I DOCUMENTATION TAGE			
1. Report Security Classification: UNCLASSIFIED			
2. Security Classification Authority:			
3.Declassification/Down grading Schedule:			
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT			
6. Office Symbol:	С	7. Address: NAVAL WAR COLL 686 CUSHING ROA NEWPORT, RI 02	AD
8. Title (Include Security Classification): The Emergence of Iranian Sea Power(Unclassified)			
9. Personal Authors: Philip G. Laquinta, LCDR, United States Navy			
10.Type of Report: F	INAL.	11. Date of Report: 13 Febr	ruary 1998
12.Page Count: 22			
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.			
14. Ten key words that relate to your paper: EMERGENCE; IRANIAN; SEA POWER; ARABIAN GULF; DUAL CONTAINMENT; INTELLIGENCE; SUBMARINES; WMD, MINES, STRAIT OF HORMUZ			
15.Abstract: This paper examines the intent of Iran's sea power strategy, and finds that it is a definitive component of a coherent national security strategy of strategic deterrence designed to protect its strategic center of gravity—its oil. Furthermore, as the operative component of its national security strategy, Iran's national military strategy focuses on deterrent regime of weapons of mass destruction, and a credible deterrent sea denial capability to threaten the Gulf shipping. Iran's sea denial capability stems from the six components of its sea power force structure: submarines, mines, coastal—based antiship cruise missiles, missile armed corvettes, naval special warfare forces and maritime strike Air Force. While not in its interest to actually carry out, Iran's potential threat to Gulf shipping is the source of its freedom to maneuver. Iran's sea power strategy has contributed to its reemergence as the dominant power in the Gulf and the reassertion of its perceived role as a Pan-Islamic leader in the region. Of significance, Iran conceives the United States policy of "dual containment" as a major threat.			
16.Distribution / Availability of Abstract:	Unclassified X	Same As Rpt	DTIC Users
17.Abstract Security		ASSIFIED	
18. Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT			
19.Telephone: 841-6461		20.0ffice Symbol: C	

ABSTRACT

The Emergence of Iranian Sea Power by LCDR Philip G. Laquinta, USN.

This paper examines the intent of Iran's sea power strategy, and finds that it is a definitive component of a coherent national security strategy of strategic deterrence designed to protect its strategic center of gravity—its oil. Furthermore, as the operative component of its national security strategy, Iran's national military strategy focuses on deterrent regime of weapons of mass destruction, and a credible deterrent sea denial capability to threaten the Gulf shipping. Iran's sea denial capability stems from the six components of its sea power force structure: submarines, mines, coastal-based antiship cruise missiles, missile armed corvettes, naval special warfare forces and maritime strike Air Force. While not in its interest to actually carry out, Iran's potential threat to Gulf shipping is the source of its freedom to maneuver.

Iran's sea power strategy has contributed to its reemergence as the dominant power in the Gulf and the reassertion of its perceived role as a Pan-Islamic leader in the region. Of significance, Iran conceives the United States policy of "dual containment" as a major threat.

INTRODUCTION

More than 20 percent of the world's annual oil production passes through the Persian Gulf's Straits of Hormuz. The Gulf region contains at least 65 percent of the world's proven oil reserves. Amplifying these simple facts is the reality that today Gulf states provide Japan 90 percent if its oil and Europe roughly 30 percent of its total requirements. The increasing globalization of the world's developed economies and their reliance on Gulf oil suggests that a long-term (greater than six months) closure of the Straits of Hormuz (SOH) and subsequent halt to Gulf oil shipments would present a global financial catastrophe.¹

Acutely sensitive to this vulnerability, the U.S. and many other Western nations, have defined the flow of reasonably priced oil through the SOH as a vital national interest.² The DOD's Security Strategy for the Middle East states:

- The world will be even more dependent on Persian Gulf oil in the early 21st century than it is today.
- As long as the United States is a maritime commercial nation with global interests, it will have a stake in protecting freedom of navigation and access to regional markets.
- The United States must therefore remain engaged in the security of the Gulf diplomatically, economically, and militarily.³

Potential threats to the stability of the Gulf region are numerous and complex. However, Iran presents the single, most significant threat to Gulf oil flow through the critical Straits of Hormuz. Iran has been and remains a major regional power.

Iran's first vital interest, oil production and its subsequent export through the Straits of Hormuz, has provided the focus for the Iranian economy for more than seventy years.

Accordingly, Iran's leaders have identified Iran's oil (production and transportation infrastructure) as its strategic center of gravity (SCOG). 4

Iran realizes that it cannot match the Unites States and its allies' head to head for control of the Persian Gulf and has adapted its operational concepts to meet its strategic objectives.

SEA DENIAL VICE SEA CONTROL

Iran's Islamic Republic did not devise a sea denial strategy overnight, but evolved it from past sea control capabilities left over from the Shah's regime. In the late 1960's the Shah's sea control strategy began to take shape. To protect its oil facilities and shipping Iran's plan was straight forward. The Shah's naval and maritime air-strike forces (by this time larger than Britain's presence in the Gulf), protected by a potent integrated air defense system (IADS) umbrella, would control the Gulf. In a hypothetical conflict, once achieving sea control of the Gulf, Iran could concentrate on projecting power ashore. A massive IADS and ground attack fighter-bombers would then shield the Iranian mainland from any retaliation. However, the

First, given Iran's significant economic limitations, the most critical portions of its sea power strategy (hundreds of advanced fighter aircraft like the F/A-18, F-15 and F-16, AWACS, a futuristic integrated air defense system, dozens of modern ships, submarines and aircraft carrier-based airpower), were never affordable.

Second, Iran's meager capacity to absorb advanced technology exacerbated this deficiency and assured the poor integration and support of sophisticated equipment delivered as part of this plan.

Third, Imperial Iran's sea control strategy, while intended to give the Shah extensive (offensive and defensive) options, depended almost exclusively on the U.S. for arms, maintenance, training and U.S. military support, particularly if Iraq or the Soviets attacked.

Under the Shah, Iran pursued a high cost, high tech sea control strategy that was heavily dependent on continued support/good relations with the U.S. The onset of the Islamic Revolution, the Shah's ouster, and the subsequent loss of U.S. support, put an end to Iran's aspirations for a sea control strategy. After the Shah, Iran has pursued a relatively low cost, low technology

strategy that is not heavily dependent on any one external source.

Beginning in 1992, Iran's national military strategy (NMS) focused on the development of two interrelated strategic priorities to protect its SCOG. The first is the maturation of an integrated deterrent strategy. This effort consumes the bulk of Iranian military resources and is centered around its potent sea denial capability to threaten Gulf shipping and close the SOH. In addition, Iran is pursuing a credible weapons of mass destruction (WMD) program, developing an effective IADS to protect its periphery against air attack, and modernizing its ground forces to pose a creditable deterrent to Iraq or any other potential aggressor.⁵

The Islamic Republic's second strategic priority is the development of an offensive airpower capability with the capacity to strike targets as distant as Tel Aviv. Iran calculates that, eventually, this strategy will give it the option of a limited preemptive attack. Still incomplete because of aircraft acquisitions and pilot training deficiencies, the operational concept of the offensive airpower strategy centers on long-range bomber aircraft (Su-24 and Tu-22M) escorted by fourth generation fighter planes (Mig-29 and Su-27), aerial refueling, and AWACS for command and control. However, given the robust capabilities of several Gulf air forces (for example, the Royal Saudi Air Force), Iran's offensive airpower strategy will be limited to countries with poor air defenses in the immediate Gulf region (such as Iraq's, which was weakened in the Gulf War). In time, however, Iran intends to obtain the assets required for an offensive airpower capability.

Of particular note the current regime believes that a WMD capability is critical to the effectiveness of its overall NMS. Iran's WMD strategy is based on the belief that Iran would be relatively secure against deliberate WMD attack if it possessed a credible counterstrike capability. For example, if the Imperial Iranian Air Force (IIAF) hit Tel Aviv with a conventional air strike, Israel could only respond in kind, eschewing a nuclear response because of the credible Iranian

WMD capability. Iran therefore anticipates that in the future it will have the capacity to deescalate or limit a conflict. One of the lessons learned by Iran during the Gulf War was that, in engaging Western nations in battle, possession of credible WMD is prerequisite rather than peripheral.⁶

Because of the immaturity of the Islamic Republic's WMD programs, the sea denial component of its deterrence regime is currently its only effective route to hegemony in the Gulf. Iran's Deputy Navy Commander, Rear Admiral Abbas Mohtaj, outlined Iran's sea denial strategy in a 12 December 1995 editorial letter to Tehran's English-language daily *Kayhan International*:

Iran's military strategy is a defensive one, in keeping with its economic and cultural potential [Therefore], the Iranian Navy's new strategy [should enable it] to respond adequately to any future threat from Israel or the U.S....

[The] new strategy includes an expansion and a modernization program that would empower the navy further and enhance its defense capabilities enabling it to cope successfully with any external threat.

Thus, Iran does not look only to the Persian Gulf as a place to play its role, but also the Oman sea and even the Indian Ocean. The construction of the Chah Bahar base and the purchase of submarines from Russia should be viewed in this context. . . .

No immediate threat is perceived from our neighbors as Iran's major rival, Iraq, is not in a position to threaten the more powerful and well-equipped Iran. At least in the immediate future, Iran has the best of relations with Pakistan and enjoys irreversibly good ties with Turkey. . . . There is no other country in the region that could be considered a threat. But there is a potential danger to Iran from more distant regions, this coming from Israel and the United States. Although the Iranian military leaders do not consider the Israeli threat of an air attack against Iran as real, preparations have been made to respond to any possible strike.

Although a military confrontation with the United States is only a remote possibility, naval and air forces would play the biggest role in confronting the Americans. [Consequently], to adequately respond to a U.S. attack, Iran has to equip its Navy with modern radars and electronic systems as well as missiles. As a basic rule, there are ten factors that affect the outcome of a war... having more sophisticated weapons is only one such factor. Although the Iranian Navy enjoys superiority over the Americans in at least six or seven of these factors, it is doing all it can to improve its defense capabilities and increase its chances for superiority in the ten factors. It is also going ahead with its strategy to ensure Iran's leadership and superiority in the Persian Gulf.⁷

Iran's quest for sea denial capability in the Gulf is clearly evident in its military force structure and disposition. The Islamic Republic's acquisition of modern submarines, advanced tactical aircraft, and antiship missiles; its reinforcement of southern Gulf islands; and its

burgeoning weapons of mass destruction (WMD) program testify to its capacity to interdict strategic sea lines of communication (SLOC) in the Gulf region. Iran's capacity to interdict Gulf shipping with its burgeoning Navy and maritime strike Air Force demonstrates a tangible commitment to a sea power component. This component is part of a larger national military strategy (NMS) that protects Iran's SCOG and denies the use of Gulf region waters to its potential adversaries. Iran's sea denial strategy involves six major weapons programs. These systems include submarines, advanced technology mines, shore-based anti-ship cruise missiles (ASCM), missile-armed fast patrol boats, Islamic Revolutionary Guard Corps Navy (IRGCN) anti-ship forces, and maritime strike aircraft.

Iran's Submarines

Iran has worked diligently to develop an effective submarine program since 1988. Their initial venture with North Korean mini-submarines floundered. The IIN-IRGCN searched for nearly three years before finding a new minisubmarine contractor that was willing to deal with them and had sufficient influence on its government to permit it to confront U.S. policy. Cosmos S.P.A., the famous Italian submersible maker of World War II, rose to the challenge in October of 1996 and began negotiations for five 400-ton hulls. Barring further U.S. pressure on Italy, Iran will probably take delivery of the first hull in late 1999.

Iran's highest-profile submarine venture has been its Kilo-class submarine program. In past Gulf conflicts, submarine threats to Western naval forces were nonexistent. This environment changed dramatically when Iran took delivery of three diesel-powered Kilo-class boats from Russia for \$600 million each (because of delivery delays and additional crew proficiency training, Iran eventually paid \$750 million for the third boat). The first boat arrived in Iran in November 1992, and the second Kilo pulled into Bandar Abbas in July 1993. Because of extensive U.S. pressure to cancel the deal, Russia held up delivery of Iran's third Kilo until December 1996.

Iran's first Kilo, commissioned Tareq-901, completed crew shakedown training and basic tactical workups in the winter of 1992. In a demonstration of its concern over this development, the U.S. sent the ultramodern fourth-generation Los Angles-class submarine USS Topeka to shadow the new Iranian submarine during its initial operations in the Gulf of Oman. After some initial problems with the warm waters of the Arabian Gulf on Soviet built batteries Iran produced, with Indian assistance, replacement batteries for its Kilo-class submarines.

Because of its shallow depth and unique heat patterns, which renders the performance of sonar operations nearly useless, the Gulf does not favor anti-ship submarine operations. Only one-third of the Gulf's narrow water area is deep enough to meet the Kilo's minimum submerged depth requirement of 100 feet. This fact alone will constrain its utility.

The Straits of Hormuz (SOH) provides an even greater challenge to submarine operations. The SOH waterway is slightly under 100 nautical miles in length, but has minimum width of 20 nautical miles, and a distinct two nautical mile (nm) wide deep water channel (split into an inbound and outbound traffic separation scheme). Furthermore, the Gulf's limited flow of fresh water and high evaporation creates extremely saline conditions. These conditions create complex underwater currents in the main channel. While this makes submarine operations extremely difficult, it also makes antisubmarine acoustic detection of the submerged Kilos almost impossible. Iran clearly intends to operate its submarines in the Gulf and the Straits of Hormuz. As early as 1993, during a foreign media interview, the Imperial Iranian Navy's (IIN's) commander Rear Admiral Ali Shamkhani brushed aside claims that Iran's submarines were of no use in Persian Gulf waters, stating that, "they can operate not only in the Persian Gulf but also in any other waters."

Although Iran conducts low-level submarine crew proficiency training in the deeper Gulf of Oman and the North Arabian Sea, almost all advanced Kilo training and participation in the

IIN's large joint exercises' take place in the Gulf, the SOH, and its approach channels. Wartime deployment of the Kilo to the Gulf of Oman, or further out into the Indian Ocean, would test U.S. ASW capabilities. While Kilo submarines are extremely slow, they are also very quiet and hard to track.

Investing in Kilo submarines to support its sea denial mission, the IIN concentrates its Kilo training on mining and special forces operations. Iran communicates to its submarines using dipping sonar's, and has recently improved its ability to use its submarines to provide surface ship tracking data to the 1st Naval District coordinated targeting team in Bandar Abbas. The targeting team uses submarine tracking data, together with data provided by shore based radar sites and patrol aircraft, to provide Iran's Silkworm and C802 ASCM missile batteries the best possible over-the-horizon-targeting (OTHT) picture.

Advanced Technology Mines

Although IIN Kilo integration in joint anti-shipping exercises is increasing, its main employment remains the independent deployment of naval mines (that is, uncoordinated with other ships or aircraft). As part of the Kilo sales package, Iran received 1,800 modern KMD-series bottom influence mines, and UEP (underwater electric potential) moored and bottom mines. In early 1995, Iran bought a large number of Chinese-built MC52 rising mines. A reengineered version of the Russian KMD3000, the MC52 has a 250 kg rocket-powered warhead that races from the bottom toward detected targets at speeds over 100 knots. The MC52 is difficult to sweep, and triggers on a ship's magnetic, acoustic, pressure, or seismic signature created when a hull passes near the mine's sensors. The mine contains ship-counter-logic (that is, the ability to count individual numbers of ships), as well as acoustic discriminating circuits (that is, basic ship type recognition), and functions in water up to 350 feet. The MC52 has excellent applications in the SOH, the western Gulf of Oman, and various Gulf harbors.¹²

The 1984-1988 Iran-Iraq Tanker War clearly provides the most telling indications of the Islamic Republic's emerging sea denial strategy. In mid 1987, as the U.S. Navy took an increasingly active role in the Gulf, U.S. Navy crews detected Iranian M-08 mines in the main deep-water channel leading to Kuwait's Mina Ahmadi oil terminal. This discovery led to a major mine clearance operation by U.S. and Saudi Minesweepers, and clearly demonstrated the sea denial potential of Iran using antiquated, but effective mines. Saudi and U.S. Navy minesweepers took more than a month to clear a single channel to Kuwait's largest oil terminal. ¹³

Iran's Anti-Ship Cruise Missiles (ASCM)

The next star in Iran's sea denial arsenal is its shore-based cruise missiles. Despite its impending replacement by the more capable C802 system, Iran's Silkworm force still forms the backbone of its coastal-based anti-ship cruise missile capability. Iran deploys HY-2 Silkworms to eight sites on the north side of the SOH, including sites at Chah Bahar Naval Base, Khuestak, Hormuz Island, Bandar Abbas, Queshim Island, and the IRGCN's¹⁴ newest sites at Abu Musa and Sirri Islands. Iran developed an extended HY-2 Silkworm with a range of 400km and will not need to buy the upgraded Version A from the Chinese.

The Iranian Navy's newest ASCM system is the shore-launched variant of the Russian supersonic SS-N-22 Sunburn. In 1992, despite heavy U.S. pressure, the Ukraine sold eight Sunburns to Iran for \$600,000 each. With a 55nm range, and a flight profile that exceeds mach 2.5, these missiles arrived in Bandar Abbas in May 1993.

Acquisition of the Chinese-made C802 represents a dramatic increase in Iran's ASCM capability. A reengineered Exocet, the C802 is very flexible and can be launched from land, ships, and aircraft. The C802 has a range of 38 nm in the surface-to-surface mode, uses a modern J-band (9-14 Ghz) radar seeker capable of discriminating chaff decoys, and can home on a ship's self-defense electronic jamming. Furthermore, it is likely that China transferred missile assembly

equipment in mid-1995 to Iran to permit limited domestic production of the C802.15

Besides the C802, Iran is working on a WMD conversion variant of its aging HY-2 Silkworm missile. This new application uses the old HY-2 airframe and carries a very small chemical warhead, probably the nerve agent Sarin or persistent 'V', supplied from Iran's massive post-war stockpiles. Moreover, because of its extremely limited payload (50-100 kg), the HY-2 WMD model could also contain the Islamic Republic's first biological warhead from its new Damghan Weapons plant. However, because of its limited 250 nm range, a biologically armed HY-2 would raise the risk of biological agents affecting Iran. The missile's guidance system is still unknown. However, with Chinese help, it will presumably use some form of inertial navigation, or even carry a Global Positioning System (GPS) receiver. 16

Fast Patrol Boats & Special Forces

The IRGCN's fast patrol boat (PTG) and special forces capability comprises the next pillar of Iran's sea denial strategy. The Naval branch of the IRGC possesses one of the largest naval special warfare capabilities of any maritime force in the world. The IRGCN operates most of Iran's PTGs as well as at least half of its HY-2 Silkworm ASCM sites. It also currently operates more than thirty-five Swedish-built Improved Boghammer patrol boats (PB), and thirty-five to forty U.S.-made Boston Whaler-type boats, and numerous Shah-era River Roadsted Patrol and Hovercraft (PBR).

Ordered in 1983, and delivered under a ploy for Iran's Customs service, Boghammer Marine Ltd manufactured a total of 51PB-class patrol boats for the IRGCN. The Boghammer can reach speeds of up to 69 knots (depending on sea state and load), and has a range of up to 500 nm.

Iran's Boghammers and other fast patrol boats (FPB) (with speeds up to 28 knots and a range of 750 nm), have very low profiles and are extremely difficult to detect by radar in sea states over five feet. The IRGCN bases FPBs at a number of offshore islands and oil platforms,

and they can strike quickly and with limited warning. There are key concentrations of FPBs at Farsi, Halul Island (actually a man-made oil platform), Sirri, Abu Musa, and Larak islands, and at the IRGCN's main base at Bandar Abbas.

The IRGCN also operates Iran's coastal artillery systems and has nearly two thousand qualified combat swimmers/divers (for comparison, the U.S. Navy SEAL force numbers less than 1,400). To support this massive program, Iran has acquired extensive stockpiles of scuba equipment and maintains a large combat diver school in Bandar Abbas. Also located in the same building complex is the IRGCN's Underwater Combat Command. Using its SOF diver and FPB forces, Iran routinely exercises its clandestine insertion and M08 moored mine laying capability.

Complementary to the IRGCN's impressive FPB capability are the IIN's ten new Houdong-class missile boats (some reports suggest that the IRGCN may operate some of these ships). These potent 110 ft boats have a maximum speed of 35 kts, have a crew of thirty-one, and carry four potent C802 Eagle Strike missiles. Classified as Fast Attack Craft-Missile (FACM) boats, negotiations for acquisition of the boats started in mid-1995, but were delayed due to disagreements with the Chinese over the missile type. The Chinese, probably as a result of U.S. pressure, wanted to equip Iran's Houdongs with the less capable C801. Iran made payment for the boats' contingent on their armament with the C802. The Chinese eventually relented and delivered the first five boats in September 1994, followed by the second five in mid-1996.¹⁷

Iran's Maritime Strike Air Force

Of key importance to Iranian sea denial deterrent ambitions is the acquisition of fifty former Iraqi maritime strike capable Su-24 Fencers and AM-39 Exocet ASCM-equipped Mirage F-1s. The IIAF recently acquired several Russian built Tu-22M Backfire long-range bombers, which are designed for the maritime strike mission.¹⁸

Iran's Su-24Ds are roughly equivalent to the U.S. Air Force's recently retired F-111

fighter, but they have nearly one-third more wing loading and twice the thrust. With a typical 9,000-lb weapon load, the Su-24 has a combat radius ranging from 500 to 1,000 miles, depending on its flight profile. With extra fuel tanks or airborne refueling, the Fencer can reach virtually any target in Iraq or the southern Gulf.

Iran's newly purchased Backfires are relics of the Cold War. Created primarily to attack U.S. carrier battle groups, the Tupolev Design Bureau rolled out the first supersonic Tu-22M Backfire in the mid-1970s. The Backfire also doubled as an excellent strategic bomber, rivaling the U.S. Air Force's B-1. Although the Backfire performs superbly in this nuclear strike role (its unrefueled combat radius from Iran is sufficient to cover the entire Middle East, the Mediterranean and Central Europe), the Islamic Republic probably purchased this exceptional aircraft to perform its originally designed purpose of long-range maritime strike.¹⁹

ANALYSIS

These complementary naval capabilities provide the "means" for Iran's sea power strategy, as well as providing a credible deterrent regime. Iran's forces are capable both of defending its territory and influencing (if not controlling) shipping in the Persian Gulf, Straits of Hormuz, and Gulf of Oman. Given Iran's own heavy dependence on the Gulf, and its lack of a sea control capability, there are few plausible scenarios in which Iran would seek to stop Gulf shipping. Thus, Iran's sea denial capability, while formidable, remains deterrence focused. Iran's political and economic aspirations further support this position. Good relations with Gulf states are critical to Iran's viability in OPEC, standing in the Arab world and its standing as a major regional power. In Iran's view, its quest for preeminence in the Gulf is the only way to ensure the level of stability in the Gulf that sufficiently protects its economic lifeline and strategic center of gravity-oil.

Iran's NMS has primarily focused on two objectives: the defense of Iran's oil production

areas (located primarily in the western and northwestern portion of the country along the Iraqi boarder); and second, its capacity to control Gulf shipping. The ability to control Gulf shipping provides two strategic advantages. It allows Iran to defend its own oil transportation and shipping facilities in the Gulf region (90 percent of Iran's oil must pass through the Gulf's Straits of Hormuz). It also allows Iran to interdict the shipping of other states. Despite severe economic problems, Iran continues to invest a significant amount of its resources, and the overwhelming majority of its military budget, to achieve these objectives.

Key to meeting these objectives has been the evolution of Iran's deterrent sea denial strategy. Iran has acquired new systems and conducts a wide range of training exercises that include amphibious operations, blocking of sea routes, mining, air-delivered maritime strikes, special operations, combined arms operations, medium-range WMD-armed missile attacks, and chemical warfare exercises. Tehran's ongoing force modernization enhances its defensive capabilities and demonstrates Iran's commitment to fielding a credible military force. The extent and pace of Iranian military resurgence has helped Iran achieve greater prominence in the Gulf while simultaneously providing it a viable coercive tool.

Iran's WMD programs complement its sea denial strategy. Iran is committed to its nuclear weapons program for reasons of deterrence, prestige, and economy. Although an indigenous nuclear weapons production capability is possible by the turn of the century or shortly thereafter, U.S. led counterproliferation efforts may extend that timeline. The Islamic Republic's ballistic missile program is also expanding, focusing primarily on medium-range ballistic missiles. Either of these programs will afford Tehran a significant measure of coercive potential over its neighbors and, possibly, its rivals (for example, Israel).

Iran's measured steps to increase its influence in the Gulf region and recent moves toward political moderation, brings into question the value of the U.S. Navy's longtime presence in the

region and the merit of the U.S. "dual containment strategy." Iran remains an ambitious power and its policies have been somewhat erratic. On one hand, Iran has increased its military capabilities to protect its legitimate interests and in response to a perceived threat from the U.S. On the other, the U.S. has increased its presence in the Arabian Gulf because of the growing capabilities/threats from Iran and Iraq. On paper, the Iran's potent mix of air-sea-sub weaponry appears to provide them a limited (Arabian Gulf) sea control capability and only U.S. presence stands in their way.

U.S. Navy Warships in the Gulf provide a rapid response capability and significant tactical flexibility to U.S. Central Command to protect Western vital interests in the region. This flexibility would be very difficult to replace if U.S. warships were to leave the region. For example, using the U.S. Navy's Gulf-based Fifth Fleet, supertankers can be organized into convoys and escorted through the Straits of Hormuz within a few hours. Without the proximate presence of American warships, this operation would take 10 to 20 days. Moreover, regional naval forces like the Royal Saudi Navy, although the second largest in the Gulf, are frigate and patrol boat based organizations, not capable of providing supertanker air defense coverage against ASCM threats such as a C802.

In addition, U.S. warships in the Gulf provide enhanced operational intelligence gathering capability and near real time situational awareness to senior commanders and political decision-makers. Severely limited situational awareness would exist without the U.S. Navy's "eyes on target" warships in the region. Free from monitoring by U.S. warships, a single Iranian LSL-class minelayer, or Kilo-class submarine could deploy MC-52 rising mines. These mines, spaced at a moderate 200 yard intervals, across the Straits of Hormuz deep water channel, thereby denying the Straits to 10.8 meter-draft supertankers could, in less than an hour, close the SOH. Conversely, sweeping that same minefield with the latest technology mine-countermeasures ships would take several days in the best weather, and weeks in poor weather. Iran, with its three

submarines, dozens of minelayers, sea and shore launched ASCMs, if pressed, could close the Straits of Hormuz (SOH) for months. Closure of the SOH for more than six months would likely raise the price of oil over the \$35 level, a price that would plunge the West into an economic recession. The close presence of U.S. warships in the region allows the West the flexibility to limit Iran's closure of the SOH from months to weeks, or possibly days in the case of an Iranian mining of the SOH.

Implications to the West

Iran's quest for preeminence in the Gulf is clearly evident in its military strategy.

The Islamic Republic's acquisition of modern submarines, advanced fighter aircraft, antiship missiles, the reinforcement of southern Gulf islands, and its burgeoning weapons of mass destruction (WMD) program testify to its capacity to interdict strategic sea lines of communication (SLOC) in the Gulf region and eventually, given its current rate of progress, its ability to deliver theater-range (2,000 km) WMD. Iran has purposefully developed military capabilities that worry both its neighbors and the West. The U.S., most other Gulf states and most industrialized Western countries view Iran's efforts to control the Gulf's waterways as a menace to Gulf stability and a direct threat to their vital national interests.

There is no reason to believe at this time that Iran's sea power buildup will make it more likely to overestimate its capabilities, or more disposed to use force. However, Iran's growing capabilities pose a significant threat/challenge to the U.S. and its allies. Iran's naval forces, comprised of small warships, fast patrol boats, land-based anti-ship missiles and submarines, are physically limited to coastal defense and short range operations. While the Iranians are not capable of projecting power or mounting an effective offensive sea power challenge to most Western naval powers, their capabilities are ideally suited for the Persian Gulf. Control of the Straits of Hormuz and coastal defense constitutes the bulk of its training effort. Iran's credible sea

denial strategy is troublesome for two reasons. First, the majority of Gulf states depend on the West for their security which ties the U.S. to the region politically. Second, the U.S. and other developed nations define the flow of reasonably priced oil as in their vital interests and would, therefore, use force to protect it. The Gulf oil ties the U.S. to the region economically.

The Islamic regime internal socioeconomic crisis is the most significant long-term threat to its internal stability and, by inference, Gulf stability. The U.S. policy of "dual containment," continued economic restrictions aimed at Iran and increased U.S. presence clearly exacerbates this threat to Iran. Hence, U.S. policy and presence in the Gulf, while possibly limiting Iran's freedom of action, may be incompatible to the West's need for Gulf stability. The "dual containment policy" should be reexamined in this context, and some form of U.S. constructive engagement with Iran should be carefully weighed.

ENDNOTES

- ¹ Caldwell, Dan, "Flashpoints in the Gulf, Abu Musa and the Tunb Islands," *Middle East Policy IV*, No. 3 (March 1996): pg. 50-57.
- ²U.S. Department of Defense, United States Central Command (CENTCOM), Special Report: Challenges in the Central Region, McDill Air Force Base, Fl, November 1992, pg. 9-86.
- ³ U.S. Department of Defense, Chairman of the Joint Chief of Staff, Unites States Security Strategy for the Middle East, Washington, DC: Government Printing Office, May 1995, pg. 3.
- ⁴Clawson, Patrick, *Iran's Strategic Intentions and Capabilities* (Washington, DC: Institute for national Strategic Studies, 1994): pg. 69.
- ⁵ Jane's Intelligence Review Special Report Number 6: Iran's Weapons of Mass Destruction, November 1995, pg. 8-9.
- ⁶Stachey, John, On The Prevention of War, (New York: St. Martins Press, 1962), pg. 58.
- ⁷ INRA-NetIran English reprint of 'Kayhan International, 12 December 1995, pg. 1.
- ⁸ Bussert, James, "Modernized Iranian Navy Poses New Gulf Dilemma." Signal, (October 1996): pg. 38-41.
- 9Ibid.
- ¹⁰ Miller, David, "Submarines in the Gulf," Military Technology, June 1993, pg. 42-45.
- ¹¹ "Iran to Hold Victory-4 Maneuvers in Persian Gulf," INRA-Netlran in English, 13 April 1993, pg. 1.
- ¹² The U.S. Navy 1995 Mine Warfare Plan, (Washington, DC, U.S. Government Printing Office, 1996), pg. 44.
- ¹³ U.S. Department of Defense, United States Central Command, 1996 Middle East Posture Statement, McDill Air Force Base Fl., 1996, pg. 129.
- ¹⁴ Cordesman, Anthony, *Iran & Iraq: The Threat from the Northern Gulf*, Oxford, UK: Westview Press, 1994, The IRGCN maintains an independent command structure. Its bases and facilities, while often collocated with IIN units, remain under the distinct control of the IRGCN. Also supporting its separate self identity is its midshipmen training facility at the IRGCN's Noshahar Naval Academy on the Caspian Sea.
- ¹⁵ Jacobs, Gordon and Tim McCarthy, "China Missile Sales—Few Changes for the Future," *Jane's Intelligence Review*, (December 1992): pg. 559-563.
- ¹⁶ Special Report Number 6: Iran's Weapons of Mass Destruction," *Jane's Intelligence Review* (November 1995): pg. 16-22.
- ¹⁷ "Choking the Strait Iranian Naval Fire Power and the Threat to Gulf Shipping." *Jane's Intelligence Review*, (September 1996): pg. 411-414.

¹⁸ Cordesman, Anthony, *Iran & Iraq: The Threat from the Northern Gulf*, Oxford, UK: Westview Press, 1994, pg. 57.

19 Ibid.

BIBLIOGRAPHY

Government Documents and Publications

- Library of Congress. *Iran: The Making of US Security Policy*, 1977-1980. Washington DC: U.S. National Security Archives, 1990.
- U.S. Department of Defense. United States Central Command. Challenges in the Central Region. McDill Air Force Base, Fl: United States Central Command, November 1992.
- U.S. Department of Defense. Chairman of the Joint Chiefs of Staff. National Military Strategy of the United States of America. Washington, DC: Government Printing Office, 1995.
- U.S. Department of Defense. Chairman of the Joint Chiefs of Staff. *United States Security Strategy for the Middle East*, Washington DC: Government Printing Office, May 1995.
- U.S. Department of Defense. United States Central Command. 1996 Middle East Posture Statement. McDill Air Force Base, Fl: United States Central Command, 1996.
- U.S. Department of State, CIA Fact Book, 1995: Iran. Washington DC: US State Department Background Notes Office, 1995.

Books

- Benard and Khalizad, *The Government of God: Iran's Islamic Republic*. New York: Columbia University Press, 1984.
- Cordesman, Anthony, Iran & Iraq: The Threat from the Northern Gulf. Oxford, UK: Westview Press, 1994.
- Jane's All the World's Aircraft-Aircraft Weapon Systems. Thorton Heath, UK: Jane's Information Group, 1995.
- Jane's All the World's Aircraft 1997. Thorton Heath, UK: Jane's Information Group, 1996.
- Jane's Fighting Ships, 1959. Thorton Heath, UK: Jane's Information Group, 1958.
- Jane's Fighting Ships 1997. Thorton Heath, UK: Jane's Information Group, 1996.
- Karsh, Efraim, *The Iran Iraq War: A Military Analysis*. London, UK: The [London] International Institute for Strategic Studies, 1987.
- Plaowski, Dick, Changes in Threat Air Combat Doctrine and Force Structure, 24th Edition, Fort Worth, TX: General Dynamics, 1992.

Strachey, John, On The Prevention of War. New York: St. Martin's Press, 1962.

Articles

- Banks, Tony and James Bruce, "Iran Builds Its Strength." Jane's Defense Weekly, (1 February 1992): 158-159.
- Bruce, James, "New Arms Race in the Gulf." Jane's Intelligence Review VII, no. 1 (November 1995): 37-39.
- Bussert, James, "Modernized Iranian Navy Poses New Gulf Dilemma." Signal, (October 1996): 38-41.
- Caldwell, Dan, "Flashpoints in the Gulf: Abu Musa and the Tunb Islands." *Middle East Policy* IV, no. 3 (March 1996): 50-57.
- "Choking the Strait-Iranian Naval Fire Power and the Threat to Gulf Shipping." Jane's Intelligence Review, (September 1996): 411-414.
- Clawson, Patrick, *Iran's Strategic Intentions and Capabilities* (Washington, DC: Institute for national Strategic Studies, 1994): pg. 69.
- Davis, Dale, "Iran's Strategic Philosophy and Growing Sea-denial Capabilities." *Marine Corps Gazette* 79, no. 7 (July 1995): 20-22.
- Hooton, Ted, "The Tanker War in the Gulf, 1984-88." Jane's Intelligence Review 4, no. 5 (May 1992): 218-221.
- "Iranian Navy should be able to respond to any future threat." 'Kayhan International, (December 1995); reprint, Netiran-IRNA, 11 December 1995, 1.
- "Iran to Hold Victory-4 Maneuvers in Persian Gulf," INRA-NetIran in English, 13 April 1993, pg. 1.
- Jacobs, Gordon, and Tim McCarthy, "China missile sales—Few Changes for the Future." Jane's Intelligence Review (December 1992): 559-563.
- Miller, David, "Submarines in the Gulf." Military Technology (June 1993): 42-45.
- Rizvi, Ali Abbas, "Iran's Armed Forces." Asian Defense Journal 9 (September 1994): 32-34.
- Segal, David, "The Iran-Iraq War: A Military Analysis." Foreign Affairs (Summer 1988): 940-951.
- "Special Report Number 6: Iran's Weapon's of Mass Destruction." Jane's Intelligence Review (November 1995): 1-35.
- Tehran-IRNA in Persian. "Rasfanjani Vows Retaliation." 22 September 1987, FBIS-LD220827.

The U.S. Navy 1995 Mine Warfare Plan, (Washington, DC, U.S. Government Printing Office, 1996), pg. 44.

"U.S. Submarines Show the Flag in the Gulf." The Washington Times, 16 January 1994, 4(G).